

Amendments of the Claims:

A detailed listing of all claims in the application is presented below. This listing of claims will replace all prior versions, and listings, of claims in the application. All claims being currently amended are submitted with markings to indicate the changes that have been made relative to immediate prior version of the claims. The changes in any amended claim are being shown by strikethrough (for deleted matter) or underlined (for added matter).

1. (Previously presented) A genetically engineered plant, or portion thereof, comprising a recombinant nucleic acid that encodes an enzyme in a plant Vitamin C biosynthesis pathway, wherein said enzyme is selected from the group consisting of phosphoglucose isomerase, phosphomannomutase, GDP-mannose pyrophosphorylase, and GDP-D-mannose-3,5-epimerase.
2. (Currently amended) The genetically engineered plant, or portion thereof, of claim 1, wherein said plant, ~~or portion thereof~~, is a dicot.
3. (Previously presented) The genetically engineered plant of claim 1, wherein said genetically engineered plant is *Arabidopsis thaliana*.
4. (Previously presented) The genetically engineered plant, or portion thereof, of claim 1, wherein said nucleic acid comprises a polynucleotide that encodes GDP-mannose pyrophosphorylase.
5. (Previously presented) The genetically engineered plant of claim 1, wherein said genetically engineered plant, or portion thereof, expresses said recombinant nucleic acid.
6. (Previously presented) The genetically engineered plant of claim 1, wherein said genetically engineered plant, or portion thereof, produces increased levels of Vitamin C relative to a progenitor plant from which said genetically engineered plant is derived.
7. (Previously presented) The genetically engineered plant of claim 1, wherein said genetically engineered plant, or portion thereof, has increased resistance to environmental stress compared to a plant of the same species without said recombinant nucleic acid, wherein

said environmental stress is selected from the group consisting of drought, cold, UV radiation, air pollution, salts, heavy metals and reactive oxygen species.

8. (Previously presented) The genetically engineered plant of claim 1, wherein said genetically engineered plant, or portion thereof, is edible.
9. (Original) A genetically engineered plant, or portion thereof, comprising a recombinant nucleic acid that encodes GDP-mannose pyrophosphorylase.
10. (Currently Amended) The genetically engineered plant of claim 9, or portion thereof, wherein said genetically engineered plant, ~~or portion thereof~~, is a dicot.
11. (Previously presented) The genetically engineered plant of claim 9, wherein said genetically engineered plant is *Arabidopsis thaliana*.
12. (Previously presented) The genetically engineered plant of claim 9, wherein said genetically engineered plant, or portion thereof, expresses said recombinant nucleic acid.
13. (Previously presented) The genetically engineered plant of claim 9, wherein said genetically engineered plant, or portion thereof, produces increased levels of Vitamin C, relative to a progenitor plant from which said genetically engineered plant is derived.
14. (Previously presented) The genetically engineered plant of claim 9, wherein said genetically engineered plant, or portion thereof, has increased resistance to environmental stress compared to a plant of the same species without said recombinant nucleic acid, wherein said environmental stress is selected from the group consisting of drought, cold, UV radiation, air pollution, salts, heavy metals and reactive oxygen species.
15. (Previously presented) The genetically engineered plant of claim 9, wherein said genetically engineered plant, or portion thereof, is edible.
16. (Previously presented) A method of increasing the level of Vitamin C produced in a plant, or portion thereof, comprising the step of:

- engineering said plant, or portion thereof, to express a recombinant nucleic acid that encodes an enzyme in a plant Vitamin C biosynthesis pathway, wherein said enzyme is selected from the group consisting of phosphoglucose isomerase, phosphomannomutase, GDP-mannose pyrophosphorylase, and GDP-D-mannose-3,5-epimerase.
17. (Previously presented) The method of claim 16, wherein said enzyme is GDP-mannose pyrophosphorylase.
18. (Previously presented) The method of claim 16, wherein said plant, or portion thereof, is a dicot.
19. (Previously presented) The method of claim 16, wherein said plant is *Arabidopsis thaliana*.
20. (Currently Amended) The method of claim 16, wherein said plant, or portion thereof, has increased antioxidant~~tion~~ capacity; relative to a progenitor plant from which said plant is derived.
21. (Previously presented) The method of claim 16, wherein said plant, or portion thereof, has increased resistance to environmental stress compared to a plant of the same species without said recombinant nucleic acid, wherein said environmental stress is selected from the group consisting of drought, cold, UV radiation, air pollution, salts, heavy metals and reactive oxygen species.
22. (Previously presented) The method of claim 16, wherein said plant, or portion thereof, is edible.
23. (Cancelled)
24. (Previously presented) The genetically engineered plant of claim 4, wherein said polynucleotide comprises SEQ ID NO:6.
25. (Previously presented) The genetically engineered plant of claim 9, wherein said nucleic acid comprises SEQ ID NO:6.

26. (Previously presented) The method of claim 17, wherein said nucleic acid comprises SEQ ID NO:6.